

Name: \_\_\_\_\_

**at1121exam\_practice: Radicals and Squares (v14)**

**Question 1**

Simplify the radical expressions.

$$\sqrt{8}$$

$$\sqrt{18}$$

$$\sqrt{20}$$

**Question 2**

Find all solutions to the equation below:

$$6(x + 9)^2 - 5 = 91$$

**Question 3**

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 + 6x = 40$$

**Question 4**

A quadratic polynomial function is shown below in standard form.

$$y = 2x^2 - 24x + 80$$

Express the function in **vertex form** and identify the **location** of the vertex.